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Evaluation Plan for the Gateway 2000 Demonstration Project

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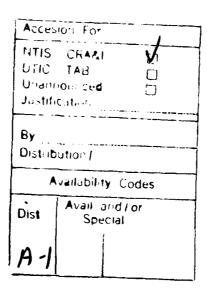
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EVALUATION PLAN FOR THE GATEWAY 2000 DEMONSTRATION PROJECT

INTRODUCTION

The Gateway 2000 Demonstration Project is designed to show that an important determinant of effective personnel management is managerial capacity to elicit employee involvement in mission accomplishment. To ascertain the validity of the project's premise, an external evaluation contractor will conduct a comprehensive, multi-year evaluation of the effectiveness of the demonstration project interventions. The effectiveness of interventions instituted in three areas of personnel management will be assessed, that is: (1) classification and compensation; (2) performance evaluation and employee recognition; and (3) training and employee development. The United States Army Aviation Systems Command and the United States Army Troop Support Command (AVSCOM-TROSCOM) comprise the demonstration project experimental site. The United States Army Tank and Automotive Command (TACOM) will serve as the project control site, and will receive no project interventions. This evaluation plan specifies the minimum requirements for the evaluation of the five-year demonstration project, and provides other information pertinent to the conduct of the multi-year evaluation.

The plan contains a brief overview of the demonstration project. The project's purpose, goals, and interventions are detailed, and information is provided about the project experimental site (AVSCOM-TROSCOM) and control site (TACOM).

The evaluation plan provides descriptive information and other guidance about the project's evaluation design (quasi-experimental, multiple time-series design) and the project phase evaluations (implementation, experimental, and summative project phase evaluations). Contractual documentation requirements for the project phase evaluations are detailed.

The plan also contains procedural guidance. It specifies quantitative measures, data sources, and instrumentation. Information is provided about the data collection schedule and data analysis. In addition, Appendix A of the evaluation plan provides detailed information about the project's data management procedures, that is, information about the project's database structure, content, development, and maintenance.

In a final section of the evaluation plan, a provisional evaluation model is applied to the three general areas of personnel management. The objective of the model applications is to provide more definitive guidance concerning the implementation of the evaluation.

<u>Demonstration Project Overview</u>

The purpose of the Gateway 2000 Demonstration Project is to demonstrate that effective personnel management depends, in large measure, on the individual manager's capabilities to elicit employee involvement in the accomplishment of the assigned mission. The demonstration project is designed to be in place for a period of five years. Project interventions will be instituted for approximately 5,000 employees of the United States Army Aviation Systems Command (AVSCOM) and the United States Army Troop Support Command (TROSCOM). The AVSCOM-TROSCOM activities, located at the Federal Center in Saint Louis, Missouri, comprise the demonstration project experimental site. A control site, that receives no project interventions, will be used to assess the effects of the interventions instituted at the AVSCOM-TROSCOM.

Located near Detroit, Michigan, the United States Army Tank and Automotive Command (TACOM) will serve as the demonstration project control site. To ensure the greatest generalization of the results of the evaluation of the Gateway 2000 project, the control site must be as similar as possible to the experimental site. Several other major subordinate commands of the United States Army Materiel Command perform functions similar to those of the AVSCOM-TROSCOM. However, based upon the degree of similarity in size, structure, mission activities, and economic and geopolitical environments, the TACOM was judged most similar to the AVSCOM-TROSCOM.

Some of the specific goals of the demonstration project are to: (1) improve communication between employees and managers; (2) enhance the compensation of high performers; (3) improve the training of employees for specific jobs; (4) provide customized career enhancement; and (5) retain a quality work force by establishing performance as a major factor. These improvements are expected to result from the individual and combined effects of instituting interventions at the experimental site in three general areas of personnel management: (1) classification and compensation; (2) performance evaluation and employee recognition; (3) and training and employee development.

Project interventions that will be instituted at the AVSCOM-TROSCOM, the experimental site, include: (1) delegation of personnel classification authority; (2) creation of career paths; (3) implementation of pay banding; (4) improved performance appraisal; (5) decentralization of training approval authority; (6) establishment of a comprehensive bonus system; and, (7) development of a program to assist employees obtain college degrees.

EVALUATION DESIGN

Overview and Rationale

A quasi-experimental, multiple time-series design (Campbell & Stanley, 1963) will be used to conduct the multi-year evaluation of the effectiveness of the Gateway 2000 project interventions. During the demonstration project, periodic comparisons will be made of changes at the experimental site (demonstration period) with prior states at the experimental site (pre-demonstration period). Also, comparisons will be made of changes at the experimental site with changes at the control site (demonstration period). This demonstration-versus-baseline, experimental-versus-control group framework will separate the effects of the demonstration project interventions from changes not related to the Gateway 2000 Demonstration Project.

Furthermore, since the proposed demonstration project involves multiple changes in more than one area of personnel management, a careful evaluation of all project phases will be necessary. Therefore, the multi-year evaluation of the project inventions will include an implementation, experimental and summative evaluation (named to correspond with the project phase in which the evaluation occurs). The overall time-series evaluation design will be implemented in the context of this multi-phase evaluative structure. Descriptions of each project phase evaluation are provided below, to include additional rationale and specific guidelines for implementing the project phase evaluations.

Implementation Evaluation

An evaluation of the project implementation is necessary to verify that the project is implemented as designed and that the stated processes are stable and operational. Evaluations of the breadth and depth of the training provided to supervisors in the new personnel management procedures are particularly critical. In addition, it is important that assessments be made of the degree of employee understanding of the new procedures and project goals. Within 30 days after implementation of the project interventions, the evaluation contractor will provide an initial assessment and report on the status of the implementation. The results of this initial evaluation may be used to modify training and the intervention implementation strategies, or to identify additional approaches necessary to ensure a satisfactory implementation.

At the end of the project implementation phase, a report that documents all activities of this phase will be submitted by the external evaluation contractor to the project officials and to the Office of Personnel Management (OPM). This report will detail all aspects of the project implementation phase and will provide additional suggestions on how to improve the implementation of the Gateway 2000 project, as appropriate. In addition, the report will include an assessment of project training. Any changes made to the intervention design during the implementation phase will be carefully documented in this report, to include the rationale for any changes made. Also, the revised design will be contained in the implementation phase report.

Experimental Evaluation

The evaluation of the quasi-experimental phase will begin as soon as the project is determined to be operational and stable by the project staff, who will be advised by the evaluation contractor. Data collection initiated prior to implementation will continue on a periodic basis, as specified (See Table 1). Reports that provide information about the progressive effects of the various interventions will be submitted by the external evaluator at least on an annual basis. Jointly these reports should provide a chronological record of the developmental history of the experimental phase of the demonstration project and should effectively capture trends and other cyclic variations surrounding the effects and the stability of the various interventions at the experimental site. These multiple experimental phase reports will be submitted to project officials and the Office of Personnel Management (OPM).

Summative Evaluation

At the conclusion of the experimental phase of the project, an overall assessment of the combined effects of the demonstration project interventions will be made. Impacts of specific system changes will be discussed separately and in combination. Cause-and-effect relationships will be established, to the extent possible, using the results of comparative analyses of pre-intervention and post-intervention data as well as the results of comparative analyses of experimental and control site data. The effectiveness of each intervention will be assessed. Efforts will be made to include an assessment of unanticipated positive, as well as negative effects. A final project report will be issued by the external evaluator and submitted to the project officials and OPM.

EVALUATION PROCEDURE

Measures and Data Sources

The types of measures that will be used in the evaluation include: (1) measures of the socioeconomic environment; (2) work force quality indices; (3) measures of employee attitudes; and (4) organizational process indices. Exemplary data sources include: (1) the personnel system database; (2) SF Form 50 (Personnel Action); (3) Employee Intake Surveys; (4) Employee Exit Surveys; and, (5) the records of the Civilian Personnel Office (CPO). Table 1 provides a more complete listing of data types and data sources. In addition, all measures and data sources identified for use in the evaluation are provided in Appendix A, which describes the project's data management procedures. An overview of selected measures and information about their use is provided below.

Measures of the socioeconomic environment of the experimental and control sites will be used to assess the comparability of the experimental and control sites, and as covariates during the analyses of the intervention effects. Work force quality measures will allow an evaluation of the differential effects of the interventions, and will provide a linkage to a nationally normed reference group. Extensive measures will be taken of the incoming and exiting employees to assess their reasons for choosing to work at (or leave) the experimental and control sites, and to allow the evaluation of the effects of the interventions on various categories of work force attrition.

Attitude surveys will be administered to assess the impact of the interventions on various employee perspectives, such as employee job satisfaction; intent to turnover among the work force; and understanding of and satisfaction with the Gateway 2000 project.

A large number of organizational process measures will be taken from the operation of the Civilian Personnel Office and other staff offices. These measures will be used to assess the impact of the interventions on the operation of the personnel office and upon such areas as the suggestion program and Equal Employment Opportunity complaint rates. (A crosswalk of specific interventions and their associated measures is provided below in the evaluation model applications.)

Table 1.

Summary of Data Types, Sources, and Collection Frequency

Data Type	* Sources	Collection Frequency
Employee Demographics	A/B	Upon Employee Action
Employee Position	A/B/C	Upon Employee Action
Employee Performance	A/C/D	At 6-month and yearly evaluations
Employee Intake/Exit	A/E/F	Upon entry or separation
Work force Quality	A/G/H/I/J/K	One-time sampling of experimental and control groups. Continual test of entry employees. Managers as take part in assessment process.
Employee Attitudes	A/L	Every 6 months, total control and experimental group.
Assessment Process Indices	A/M	To be determined.
Organizational Indicators	Q	Quarterly
Socioeconomic Indicators	N/P	Quarterly

* Source code designations:

- A Initial exercise of the Personnel System Database
- B SF FORM 50 (Personnel Action)
- C Previous G2K Database entry (Current position becomes previous position upon receipt of SF 50 for transfer)
- D G2K Personnel Evaluation Forms (CPO)
- E New Employee Intake Survey
- F Separating Employee Exit Survey
- G Employee Quality Survey
- H Evaluator Transforms of Quality Indexes
 (Institutional quality ratings, ratings of match between major field of study and job, etc.)

Table 1 continued

Q

Summary of Data Types, Sources and Collection Frequency

* Source code designations:

I Skills, Knowledge & Abilities Testing Battery
J Management Quality Index Test
K Professional Level Survey, Professional Societies
and Certification Agencies, and Special Testing.
L Employee Attitude Survey

M Assessment Process
N Bureau of Labor Statistics
P Local Chamber of Commerce

Civilian Personnel Office Records

Data Collection Schedule and Analysis Plan

The measures reported as data elements in Appendix A and summarized in Table 1 will be collected at the experimental and control sites prior to implementation of the demonstration project and periodically thereafter, as specified in Table 1. For example, socioeconomic and organizational process indicators will be collected quarterly throughout the life of the demonstration project.

Analysis. Each of the program evaluation analyses will compare changes occurring at the experimental site (demonstration period) to the baseline period (pre-demonstration period), and also will compare changes at the experimental site (demonstration period) with changes occurring at the control site. In addition, an analysis of covariance approach may be utilized to assess the extent to which socioeconomic environmental factors may account for the observed changes. This analytical framework will permit the differentiation of changes that occur uniquely at the experimental site from other systemic changes occurring throughout the Army Materiel Command, the Army in general, or society at large.

The statistical methods that will be employed to conduct the analyses include: (1) multiple linear regression; (2) correlational analysis; (3) factor analysis; (4) analysis of variance; (5) multivariate analysis of variance; (6) analysis of covariance; and (7) nonparametric procedures, such as chi-square. Exemplary analyses are provided below in the applications of the provisional evaluation model to each of the personnel management areas (See Evaluation Model).

EVALUATION MODEL

Applications of a provisional evaluation model to the three general areas of personnel management (i.e., classification and compensation; performance evaluation and employee recognition; and training and employee development) are described below (Rutman & Mowbray, 1983). These model applications are presented to provide more definitive quidance for the conduct of a comprehensive evaluation of the Gateway 2000 Demonstration Project. The components of the evaluation model are: statement of the problem; (2) objective; (3) hypothesis; (4) interventions; (5) expected effects of the interventions; (6) measures; (7) data sources; and (8) analysis(es). The model applications are summarized in Table 2 that lists the interventions, expected effects, and measures for each area of personnel management. The model is not considered to be exhaustive at this point and additions and adjustments may be made, as appropriate, during the implementation of the evaluation.

It is important to point out that because the interventions will be implemented as a set, the effects of any single intervention cannot be interpreted as though it were implemented apart from other interventions. However, each intervention does have expected measurable effects, some of which are specified in the model applications.

Classification Personnel Management Area

Statement of Problem: Today's classification system encompasses more than 400 different white collar occupations and 18 grades of difficulty, making it cumbersome and complex. managers and employees do not understand and/or accept the cur-This system of 18 distinct grades calls for rigid rent system. application of the position classification standards. This rigid job classification and the resulting over-specialization too often forces managers to employ more manpower than is actually required to assure that all tasks are covered. In addition, the lack of knowledge and the lack of control over the budget provides little incentive for managers/supervisors to practice efficient and effective position management in their organizations.

Objective: Simplify the classification system.

<u>Hypothesis</u>: Dissatisfaction and confusion of employees and managers and inefficient utilization of human resources are related to the complexity of the personnel classification system.

Interventions:

Delegate classification authority along with a civilian pay ceiling (CPC) to supervisors/managers.

Establish bands which combine several grades into one band.

Replace current job classification standards and job descriptions with broad level descriptors that define "ranges" of work within a given level.

Create career paths that contain groups of occupations or professions that are similar enough to warrant similar treatment in compensation.

Expected Effects:

Improved manpower utilization for mission accomplishment.

Improved understanding of the classification system by supervisory and non-supervisory personnel.

Change in the image of the Civilian Personnel Office to an "advisor" organization.

Increased awareness of the budget process.

Greater employee growth and development opportunities.

Increased managers/supervisors accountability.

Reduced classification time.

Measures:

Acceptance ratio (all personnel)

Attitudes

- -Job Satisfaction
- -Career opportunities
- -Civilian Personnel Office function and utility
- -Classification process
- -Organizational effectiveness
- -Utilization of abilities & talents
- -Control and accountability by supervisors

Number of personnel actions

Data Sources:

Civilian Personnel Office transaction records

Attitude surveys

Analyses:

Comparison of acceptance ratios, pre-intervention and post-intervention with the control site.

Comparison of attitude survey responses, pre-intervention and post-intervention with the control site.

Performance Evaluation and Employee Recognition

Statement of Problem: Employees perceive no direct link between performance and reward. The current pay system has no provision for providing a direct link between performance and pay. Supervisors use promotion and incentive awards to recognize some deserving employees. Limitations such as budget constraints and competitive requirements for promotion prevent recognition of all deserving employees. Supervisors and employees perceive the current performance appraisal process as a paperwork exercise, and perceive actual performance as having little or no influence on receiving an award. These perceptions have resulted in poorly developed performance standards and the superficial communication that exists between supervisors and employees. The extensive documentation and review process minimize the motivational connection intended since recognition is so far separated in time from actual achievement.

Objective: Establish a direct link between performance and reward.

<u>Hypothesis</u>: The linkage of pay to performance is related to perceptions of equity and satisfaction with the pay and performance appraisal system.

<u>Interventions</u>:

Institute a performance appraisal system which recognizes and rewards rapid employee development in new positions and sustained performance once target levels are achieved.

Provide frequent initial performance evaluations with successful performance linked to base pay increases.

Establish a bonus system to serve as a vehicle for recognizing employee performance.

Lower approval levels for monetary incentive awards (Special Acts and On-The-Spot Awards).

Expected Effects:

Performance objectives perceived as more meaningful.

Improved communication between supervisors and employees.

Perception of a direct link between performance and award.

Increased number of employees receiving performance awards.

Increased satisfaction with pay and bonuses.

Reduced paperwork burden for managers and staff.

Measures:

Attitudes

- Pay and bonus satisfaction
- Performance appraisal system
- Frequency and effectiveness of communications
- Paperwork burden for supervisors

Data Sources:

Attitude survey

Analysis:

Compare attitude pre-intervention and post-intervention with control site.

Training and Employee Development

Statement of Problem: The current laws and regulations pertaining to the training of federal employees interfere with the most effective means of providing adequate training and development to the total work force. Both the Packard Commission findings and the work force survey indicate that training and development could be delivered in a more effective manner if the approval process was decentralized, the current regulations and procedures streamlined, and a strengthened process for identifying training needs established. The work force survey also strongly suggests that pre-supervisory training should be available to employees prior to assuming supervisory positions and that the prohibition of funding for degrees does not serve the best interests of the employee or the organization.

Objectives: Develop a more capable and motivated work force by providing training and development opportunities on a timely basis.

<u>Hypothesis</u>: The training provided to employees contributes to the overall quality and efficiency of the work force. Additional provisions for training will increase the retention of high quality personnel and improve recruitment of scientists and engineers.

Interventions:

Decentralize the approval of training to the Director/Office Chief.

Establish an assessment process to determine training needs for individual employees relating to supervisory duties.

Establish a Degree Tuition Program to reimburse employees for job or command related college degrees.

Implement an understudy program to allow for competitive selection of an employee prior to the departure of the incumbent.

Expected Effects:

Improved individual training and development plans.

Increase in number of employees pursuing and completing college degrees.

More highly qualified applicants for employment.

Improved retention of high quality employees.

Improved perceptions of supervisory effectiveness.

Improved perceptions of training opportunities.

Measures:

Attitudes:

- Training opportunities
- Intent to turnover
- Supervisor effectiveness and knowledge
- Managerial perceptions of training needs and benefits

Quality of new hires and separations.

Educational level of work force

Data Sources:

Civilian Personnel Office records

Attitude survey

Intake/Exit Questionnaires and Assessments

Analyses:

Comparison of attitude survey items and scales preintervention and post-intervention with control group.

Comparison of educational levels pre-intervention and post-intervention with control group.

Comparison of work force quality indicators and intake/exit questionnaire data pre-intervention and post-intervention with control group.

Table 2.

Evaluation Model Summary for Personnel Management Areas*

<u>Interventions</u>	Expected <u>Effects</u>	<u>Measures</u>
Classification Area		
Delegate classifica- tion authority	Improve understanding of process	Attitude Survey
	Improve perception of management control	
Establish pay bands	Improve management flexibility	Attitude Survey
	Improve worker job satisfaction	
	Increase supervisory accountability and control	
Replace current job classification standards	Increase perceived career flexibility	Attitude Survey
Scandards	Increase management flexibility	
Create career paths	Increase perceived career flexibility	Attitude Survey
	Improve retention	CPO Database
Performance Evaluation Area		
Institute a pass/fail performance evaluation system	Improve employee satisfaction	Attitude Survey
ayacem	Decrease supervisor workload	
	Decrease grievances	CPO Database
	Decrease EEO/AA complaints	EEO/AA Office Records

Table 2 continued

Evaluation Model Summary for Personnel Management Areas*

Interventions	Expected <u>Effects</u>	Measures
Link performance to pay	Improve satisfaction with pay and rewards	Attitude Survey
	Increase perceived pay-performance link	
	Increase retention of high performing employees	Exit Survey
	employees	Employee Quality Indicators
Establish bonus system	Improve satisfaction with pay and rewards	Attitude Survey
Lower award approval levels	Increase perceptions of supervisor control	Attitude Survey
Training and Development Area		
Decentralize training approval	Improve employee satisfaction	Attitude Survey
Establish assessment process	Earlier training of supervisors	Attitude Survey
	Improve relevance of training	
	Improve perception of career opportunities	
Establish Degree Tuition Program	Improve work force quality	Work Force Quality Indicators
	Improve retention	Indicators
Implement an understudy program	Improve work force quality	Work Force Quality Indicators

Table 2 continued

Evaluation Model Summary for Personnel Management Areas*

^{*} Note: The effects and measures listed are representative of the total effects and associated measures for the proposed interventions, and therefore should only be considered as the minimum <u>a priori</u> set. Additional effects and measures will be specified by the evaluation contractor and project staff prior to implementation and during the course of the project.

REFERENCES

Campbell, D.T., & Stanley, J.C. (1963). Experimental and quasiexperimental designs for research. Chicago: Rand McNally College Publishing Company.

Rutman, L., & Mowbray, G. (1983). <u>Understanding program evaluation</u>. Beverly Hills, CA: Sage Publications, Inc.

APPENDIX A

PROJECT DATABASE

In order to conduct the long-term evaluation of the Gateway 2000 demonstration project interventions, continuous control of the data collected during the life of the project is essential. This appendix specifies the structure of the project's global database (G2K Database), and the structure and content of the databases that comprise the global database, sub-databases. For each database, the document indicates the data elements to be collected, data sources and the frequency of data update (as applicable). It is anticipated that these databases will be managed by the evaluation contractor. In the concluding section, specific guidance is provided about how to create and maintain the database as well as other information pertinent to database integrity.

Database Structure and Content

Depending upon the specific database management program selected, some minor variation in the database structure may occur. The following specification assumes that only fixed record lengths are supported (as for example in DBase III). Therefore, separate records must be maintained for recurring, variable instance data elements (such as surveys, promotions, etc.). Should a more sophisticated database management program be available, these separate records may be combined. In any event, the overall impact of these considerations should be transparent to the demonstration project staff, and the U. S. Army Aviation Systems Command (AVSCOM) and the U. S. Army Troop Support Command (TROSCOM) management.

The global database will henceforth be referred to as the G2K Database. The G2K Database will consist of two principal sub-databases, i.e., G2KE that will contain data collected from the experimental site (AVSCOM-TROSCOM) and G2KC that will contain data collected from the Control site (TACOM). Each sub-database (G2KE and G2KC) is further subdivided as listed in Table A-1.

Table A-1.

G2K Database System

Database Name	Content	Size (Approx.)
G2Kx-EDEMO	Employee demographic information	20 Fields 200 Characters
G2Kx-EPOS	Employee position (Multi data blocks)	10 Fields 100 Characters
G2Kx-EPERF	Employee performance (Multi data blocks)	10 Fields 100 Characters
G2Kx-EIED	Employee intake/exit information	20 Fields 200 Characters
G2Kx-QUAL	Work force quality data	50 Fields 200 Characters
G2Kx-ESURVn	Employee attitude survey (Multiple entries)	200 Fields 250 Characters
G2KE-AC	Assessment process data	200 Fields 1000 Characters
G2Kx-ORGn	Organizational process and outcome data (Multiple entries)	30 Fields 300 Characters
G2Kx-EXTn	External socioeconomic data	40 Fields 200 Characters

Note. x will be either E for AVSCOM-TROSCOM or C for TACOM Total expected size of database after five years is 40MB.

The structure and content of each database is specified below, that is, the: (1) Employee Demographic and Background Information Database; (2) Employee Position Database; (3) Employee Performance Appraisal Database; (4) Employee Intake and Exit Database; (5) Work force Quality Index Database; (6) Employee Attitude Survey Database; (7) Assessment Process Database; (8) Organizational Process and Outcome Database; and (9) External Socioecomonic Database. The translation of the entries in the source columns is provided in Table A-2 that lists the data sources, and their key designations (e.g., "A" designates the data source "Initial Exercise of Personnel System Database").

<u>G2Kx-EDEMO:</u> Employee Demographic and Background Information Database

Source		Description	Code(s)
	Ide	ntification block:	
A	1.	Special ID Code	
	Dat	a block:	
A/B	2.	Date of Birth	
A/B	3.	Service Computation Date	
A/B	4.	Occupational Group Code	
A/B	5.	Veteran Preference Status	
A/B	6.	Handicap Codes	
A/B	7.	Tenure Status	
A/B	8.	Education Level	
A/B	9.	Year Education Completed	
A/B	10.	Ethnic Status	
A/B	11.	Gender	

<u>G2Kx-EPOS</u>: Employee Position Database (Current and Previous)

```
Source
             Description
                                                   Code(s)
         Identification block:
 Α
             Special ID Code
         Data block (Current Position):
 A/B
         2.
             Date Occupied Position
             Employing Command
 A/B
         3.
 A/B
         4.
             Job Series Number
A/B
         5.
             Pay System (Demo; GS; GM)
 A/B
         6.
             Grade or Level (GS/GM 01-15; Demo I-IV)
A/B
         7.
             Pay Step of Grade (GS/GM only)
A/B
         8.
             Salary
         9.
 A/B
             Supervisory Status
         Data block (Previous Position):
 B/C
         10. Date Occupied Position
 B/C
         11. Employing Command
 B/C
         12. Job Series Number
 B/C
         13. Pay System (Demo;GS;GM)
 B/C
         14. Grade or Level (GS/GM 01-15; Demo I-IV)
 B/C
         15. Pay Step of Grade (GS/GM only)
 B/C
         16. Salary
         17. Supervisory Status
 B/C
         Data Block (Previous Position):
 B/C
         18. Date Occupied Position
 B/C
         19. Employing Command
 B/C
         20. Job Series Number
 B/C
         21. Pay System (Demo;GS;GM)
 B/C
         22. Grade or Level (GS/GM 01-15; Demo I-IV)
 B/C
         23. Pay Step of Grade (GS/GM only)
 B/C
         24. Salary
 B/C
         25. Supervisory Status
```

<u>G2Kx-EPERF:</u> Employee Performance Appraisal Database Source Description Code(s) Identification block: A 1. Special ID Code Data Block (Last Evaluation): 2. Date of Evaluation D 3. Type of Evaluation (1 = 6mo. Demo; 2 = yrly Demo; D 3 = Control yrly)4. Outcome (Literal for control; 0/1 for 6mo demo; D 1-3 for yrly demo) D 5. Monetary Result (Salary increase for 6mo demo eval; bonus for yrly demo; leave blank for controls) Data Block (Previous Evaluation): 6. Date of Evaluation 7. Type of Evaluation (1 = 6mo. Demo; 2 = yrly Demo; 3 = Control yrly)C 8. Outcome (Literal for control; 0/1 for 6mo demo; 1-3 for yrly demo) C 9. Monetary Result (salary increase for 6mo demo eval; bonus for yrly demo;

[REPEAT DATA BLOCKS 25 TIMES TO ALLOW FOR POSSIBLE NUMBER OF EVALUATIONS OVER THE FIVE YEAR LIFE OF PROJECT.]

leave blank for controls)

Description Source Code(s) Identification block: Α Special ID Code Data Block (Intake): Hire Status (1 = Existing employee at demo start; Α 2 = Employee hired after demo start Remainder of Intake block blank for Hire Status =1) (1 = Previously unemployed/school; E 3. Source 2 = Employed outside federal gov't; 3 = Transfer from outside DoD; 4 = Transfer from AF or Navy; 5 = Transfer from AVSCOM/TROSCOM-TACOM; 6 = Transfer from other Army) E Intake Survey Questionnaire Items E E E 25. Data Block (Exit): F 26. Date of Separation F 27. Destination (1 = retirement from fed service; 2 = unemployed/none stated; 3 = school;4 = outside federal gov't; 5 = Fed Gov't, outside DoD 6 = DoD, outside Army 7 = AVSCOM/TROSCOM-TACOM; 8 = Other Army)F 28. Level (1 = promotion; 2 = lateral; 3 = reduction) 29. Exit Survey Questionnaire Items F

<u>G2Kx-EIED</u>: Employee Intake and Exit Database

F

F

40.

G2Kx-QUAL: Work Force Quality Index Database

```
Description
Source
                                                  Code(s)
         Identification block:
 Α
         1.
             Special ID Code
         Data block: (Education)
             Years of schooling
 G
         2.
 G
         3.
             Degree(s) awarded
 G
             Date of degree(s)
         4.
 G
         5.
             Grade-point average
 G
             Rank in Class
         6.
             Institution Attended
 G
         7.
 G
             Major field of study
         8.
 G
         9.
             Continuing education quantity
 G
        10.
             Continuing education kind
 G
        11.
             Continuing education source
 Н
        12 - 20.
                 Reserved
         Data Block: (SKA Test Data)
         21.
              Test Score 1
 Ι
 Ι
 Ι
 I
         40.
              Test Score 21
         Data Block: (Management Quality Index for Supervisors)
 J
         41.
              MQI Scale 1
 J
 J
 J
         50. MQI Scale 10
         Data Block: (Special Qualification Data)
 K
         51.
              Type of data to follow (1 = Engineering
         Certification Score; 2 = CPA Score etc.)
              Qual Score 1
 K
         52.
 K
 K
 K
         55. Qual Score 4
```

G2Kx-SURVn: Employee Attitude Survey Database

(Database repeated n times)

Description Code(s) Source

Identification block:

1. Special ID Code A

Data Block:

- Date of Survey Administration
 Survey version number
 Questionnaire Items L
- L
- L
- L
- L 200.

G2KE-AC: Assessment Process Database

Source Description Code(s)

Identification block:

A 1. Special ID Code

Data Block:

M 2. Date of Assessment

M Additional Data Elements will be defined during Assessment Process development.

G2Kx-ORGn: Organizational Process and Outcome Database

(Assuming one pre-implementation data collection and data collection at three month intervals thereafter. There will be 21 copies of this database, numbered sequentially from 1 (the pre-intervention data) to 21 (the final data collection of the five year project).

Source	Description Code(s)	
B/Q	Data block: (Population Indices)	
	1. Actual Strength	
	 Average Strength 	
	3. Number GS employees	
	4. Number GM employees	
	5. Number GS female employees	
	6. Number GM female employees	
	7. Percentage of females in work force	
	8. Number GS minority employees	
	 Number GM minority employees Percentages of minorities in work force 	
	11. Number civilian supervisors who have	
	been supervisors more than 6 months	
	12. Number military supervisors who have	
	been supervisors more than 6 months	
B/Q	Data Block: (Classification)	
	13. Number of high grades (11-15)	
	14. Number of grades (1-10)	
	15. Average grade for command	
	16. Number SES positions	
	17. Number upward mobility positions	
	18. Number of positions reviewed	
	19. Number of positions audited	
B/Q	Data Block: (Recruitment and Placement)	
	20. Number of GS-13 and above positions filled by grade	
	21. Number of GS-9 thru 12 positions filled by grade	
	22. Number of GS-5 thru 8 positions filled by grad	је
	23. Number of GS-1 thru 4 positions filled by grad	
	24. Fill rate of Upward Mobility positions	
	25. Number of handicapped new hires	
	(referrals and selections)	
	26. Number of Severely Handicapped new hires	
	27. Number of Disability Veteran new hires (DAVs)	
	28. Number of Upward Mobility employees graduated	
	Number of Upward Mobility positions under recruitment	

- 30. Number of days from CPO receipt SF 52 to commitment of position
 31. Number of positions committed during reporting period
 32. Average number of days to commit position
- B/Q Data Block: (Technical Services)
 - 33. Number of personnel actions processed by quarter (Reassignments, realignment, details, changes in organizational name, within-grade increases, employee name and address changes, and change-to-lower grade)
- Q Data Block: (Performance Ratings)
 - 34. Number of ratings to be completed
 - 35. Number ratings completed within 45 days of end of rating period
 - 36. Percentage of ratings completed within 45 days
 - 37. Number of ratings processed which were completed in less than 75 days after end of rating period
- Q Data Block: (Training)
 - 38. Number of hours of training per quarter
 - 39. Number of course participants per quarter
 - 40. Total training cost by quarter
 - 41. Average number course per employee
 - 42. Allocated spaces; spaces used; hours of training at resident training schools.
 - 43. Percentage of authorized training spaces used
 - 44. Number of executive seminars
 - 45. Number of executive development programs
 - 46. Number of employees in executive development programs
 - 47. Number of civilian supervisors with more than 6 months on job who have received the required supervisory training
 - 48. Number of military supervisors with more than 6 months on job who have received the required supervisory training
 - 49. Percentage of supervisory training accomplished (military and civilian)

0 Data Block: (Awards) 50. Number of Quality Increases (QI's) (total) 51. Number of QI's to GS employees 52. Number of QI's to females Number of QI's to minorities 53. Number of performance awards to GS and GM 54. employees (total) (QI's and Sustained Superior Performance Awards) 55. Number of performance awards to GS and GM female employees 56. Number of performance awards to GS and GM minority employees 57. Number and amount of awards by grade and directorate Data Block: (Suggestions) Q Number of suggestions submitted 58. 59. Number of suggestions adopted Number of suggestions over 180 days old 60. 61. Number of suggestions approved, not implemented 62. Number of suggestions under evaluation 63. Suggestion backlog rate (%) 64. Tangible benefits from civilian suggestions for last 3 years Percentage of suggestion goal achieved 65. 0 Data Block: (Sick Leave) Number of sick leave hours used Average sick leave used per employee 0 Data Block: (Management-Employee Relations) Number of written reprimands 1. Number of suspensions 2. Number of demotions 3. Number of removals 4. 5. Total adverse actions Number of grievances (Negotiated vs Department 6. of the Army) Number Unfair Labor Practice complaints issued by Federal Labor Relations Agency Q Data Block: (Miscellaneous) Number of retirees Number of retirement eligibles by directorate 3. Number of on-the-job injuries

G2Kx-XTLn: External Socioecomomic Factors Database (Data collected quarterly and n varies from 1, preimplementation, to 21.) Code(s) Source Description (Employment Rates) N/P Data Block: Overall local employment rate Local employment rate by occupation 2. 3. 4. 5. 6. 7. 8. Data Block: (Work Force Demographics) Total available labor pool in metropolitan area Male percent in labor pool 10. 11. Female percent in labor pool 12. Minority percent in labor pool 13. Male minority percent in labor pool 14. Female minority percent in labor pool 15. Average educational level of labor pool Labor pool available by occupation 16. 17. ** 18. 19. 20. 21. 22. Data block: (Economic Conditions) 23. Median yearly wage Median yearly wage by occupation 24. 25. * 26. 11 27. * 28. 29. 30. 31. Median new home selling price

32. Cost of living index

Table A-2.

Data Sources and Key

<u>Key</u>	Data Source
A	Initial exercise of the Personnel System Database
В	SF FORM 50 (Personnel Action)
С	Previous G2K Database entry (Current position becomes previous position upon receipt of SF 50 for transfer)
D	G2K Personnel Evaluation Forms (CPO)
E	New Employee Intake Survey
F	Separating Employee Exit Survey
G	Employee Quality Survey
Н	Evaluator Transforms of Quality Indexes (Institutional quality ratings, ratings of match between major field of study and job, etc.)
Ī	Skills, Knowledge & Abilities Testing Battery
J	Management Quality Index Test
K	Professional Level Survey, Professional Societies and Certification Agencies, and Special Testing.
L	Employee Attitude Survey
M	Assessment Process
N	Bureau of Labor Statistics
P	Local Chamber of Commerce
Q 	Civilian Personnel Office Records

Database Creation and Maintenance

Initial Database Generation: At six months prior to implementation, the personnel system database will be exercised to produce the initial loading of the G2K Database System. This exercise will create each of the employee database elements indicated above and will initialize each with the appropriate header identification blocks and the entire Employee Demographics database (G2Kx-EDEMO). The personnel system database will be exercised again at the completion of the implementation phase to establish the work force in place at the start of the project. New records will be created for those employees not present during the first exercise, and the records for departed employees will be purged.

Database Contents Verification: A random sample of approximately 10% of the total employee database entries of the G2Kx-DEMO database will be printed and forwarded to employees for verification of the data. Should the error rate indicated by this exercise exceed 1% of the critical data elements (i.e., special identification codes, education, and service computation date) then the entire contents of the G2Kx-EDEMO database will be subjected to employee review. This verification exercise will be repeated for the G2Kx-EDEMO and other databases on a yearly basis.

<u>Database Security</u>: One secure confidential copy of the crosswalk between the special identification code and the employee identification data (social security number and name) will be maintained. To insure confidentiality of employee responses, access to this information will be rigidly restricted.

<u>Database Upkeep Responsibility</u>: It will be the responsibility of the evaluation contractor to maintain the database. For the most part, data for entry into the G2K Database System will come from the normal records which are processed through the personnel office (i.e., Form 50's, etc.). The evaluation contractor's resident coordinator must, therefore, be formally placed in the chain of distribution for all personnel actions and other relevant documents. It will be the coordinator's responsibility to extract the required information, code it appropriately, and enter it into the database. To ensure database integrity, stringent controls must be enforced by the evaluation contractor on the resident coordinator, and extensive quality control checks must be built into the database update In addition, appropriate safequards against data loss must be taken through a regular and strictly enforced system of transaction journals and storage media backup. Provisions for these and other procedures will be built into the statement of work for the evaluation contract.

It is absolutely essential that complete and equivalent data be collected from both the experimental and control sites. It is anticipated that the evaluation contractor will place a full time employee (resident data coordinator) at both the experimental and control sites to ensure data integrity. The resident data coordinator will conduct the day-to-day data collection activities, including administration of the Intake, Quality Assessment and Exit Questionnaires; and to the extent possible, the coordinator will relieve the personnel office of any burden related to the data collection for this evaluation.

Other Considerations: Because of the importance placed upon employee turnover and its control under this project, valid data regarding the reasons for turnover are vital. Previous experience has shown that employees are sometimes unwilling to candidly state their reasons for leaving or accepting a job, for fear of the impact on future personnel actions. Therefore, it is proposed that during the course of this project the evaluation contractor will assume responsibility for all entry and exit questionnaires with assurances of complete anonymity provided to the employees. This action will hopefully increase the validity of the information obtained. Further, the contractor will be instructed to vigorously follow-up to ensure that all departing employees and new employees complete the survey instruments.